

WHAT IS CLAIMED IS:

1. A method for controlling manufacture of a sheet material in which the sheet material or a processed product of the sheet material is manufactured by processing the sheet material or performing predetermined operations on the processed sheet material at each of processing operations or processing sections provided at the processing operations while conveying the sheet material along a predetermined line, the method comprising:

detecting the sheet material or the processed product of the sheet material by sheet material detectors disposed at entrance and exit sides of each of the processing operations or the processing sections where the sheet material or the processed product of the sheet material enters and exits the processing operations or the processing sections; and

controlling conveyance or manufacture of the sheet material or the processed product of the sheet material based on results of detection by the sheet material detectors.

2. A system for controlling manufacture of a sheet material provided for a sheet material processing process which includes a sorting operation where the sheet material is conveyed along a conveyance line and is collected while being sorted at a branch gate disposed at the conveyance line, the system comprising:

sheet material detectors disposed respectively at entrance and exit sides of the branch gate for detecting the sheet material fed into the branch gate or passed through the branch gate; and

a determination section for determining if any failure has occurred in at least one of conveyance and sorting of the sheet material, based on results of detection by the sheet material detectors.

3. The system according to claim 2, wherein, conveyance of the sheet material along the conveyance line is stopped when occurrence of a failure in conveyance or sorting of the sheet material is determined based on a result of determination at the determination section.

4. The system according to claim 3, wherein the processing process comprises a cutting operation for producing the sheet material by cutting to a predetermined length a long material wound in a roll, the system comprises a calculation section for calculating a number of produced sheet materials based on a length of the material drawn out from the roll, and when the conveyance of the sheet material is stopped, a number of the collected sheet materials at each destination of the branch gate is compared with the number of produced sheet materials calculated at the calculation section.

5. The system according to claim 2, wherein the processing process comprises an operation for wrapping and packaging the sheet materials which have been sorted and collected in the sorting

operation, the system comprises counting sections for counting a number of products at each of the operations in the processing process and the numbers of products at the respective operations counted by the respective counting sections are checked at a predetermined timing.

6. A method for controlling manufacture of a sheet material applied to a manufacturing line including an operation section for performing a predetermined operation on the sheet material while conveying the sheet material along a predetermined conveyance path, the method comprising:

detecting the sheet material by sheet material detectors respectively disposed at entrance and exit sides of the operation section where the sheet material enters and exits the operation section; and

controlling conveyance or manufacture of the sheet material based on results of detection by the sheet material detectors.

7. The method according to claim 6, wherein the predetermined operation comprises sorting the sheet material.

8. The method according to claim 6, wherein the operation section comprises a branch path for sorting the sheet material being conveyed, and the sheet material detectors are disposed at entrance and exit sides of the branch path.

9. A system for controlling manufacture of a sheet material used in a sheet material manufacturing line which includes a sorting section for sorting the sheet material and conveying and collecting the sheet material into different collection sections, the sorting section including a sheet material conveyance path with at least one branch gate, the at least one branch gate operating so as to direct the sheet material conveyed thereto to one of different paths therefrom, the system comprising:

sheet material detectors disposed at entrance and exit sides of the at least one branch gate for detecting the sheet material that passes through or has passed through the at least one branch gate; and

a determining section for determining a conveyance status of the sheet material based on results of detection by the sheet material detectors.

10. The system according to claim 9, wherein the determining section determines if any failure has occurred in at least one of conveyance and sorting of the sheet material.

11. The system according to claim 9, wherein the determining section determines the conveyance status of the sheet material based on checking at least one of the results of detection by the sheet material detectors disposed at the entrance and exit sides of the branch gate.

12. The system according to claim 9, wherein each of the collection sections is disposed, together with a counter for counting a number of the sheet materials collected at each collection section, at each of terminal ends of the branch paths.

13. The system according to claim 9, wherein at least one of the paths branched from the at least one branch gate directs the sheet material toward a next branch gate.

14. The system according to claim 10, wherein the system is controlled so as to stop conveyance of the sheet material based on a determination of a failure at the determining section.

15. The system according to claim 9, wherein the manufacturing line comprises a cutting section for producing the sheet material by cutting to a predetermined length a long material wound in a roll, the system comprises a calculation section for calculating a number of produced sheet materials based on a length of the material drawn out from the roll, and a number of the collected sheet materials in the collection sections is compared with the number of produced sheet materials calculated at the calculation section.

16. The system according to claim 15, wherein the comparison between the numbers of the sheet materials is performed when conveyance of the sheet material is stopped.

17. The system according to claim 9, wherein the manufacturing line further comprises at least one of a wrapping section for wrapping and a packaging section for packaging the sheet materials sorted and collected at the sorting section, the system comprises a counting section for counting a number of produced sheet materials at the sorting section and at at least one of the wrapping section and the packaging section, and the numbers of produced sheet materials at the sorting section and at at least one of the wrapping section and the packaging section, which are counted at a predetermined timing, are compared with each other.